



United States Department of Agriculture
Forest Service

Otter Project

Draft Decision Notice and Finding of No Significant Impact

Marienville Ranger District, Allegheny National Forest, Elk County, Pennsylvania

August 2019



Coarse woody debris and glossy buckthorn in the Otter project area, photo taken by Scott Ion, Archaeological Technician

For More Information Contact:

Robert T. Fallon
Allegheny National Forest
131 Smokey Lane
Marienville, Pennsylvania 16701
Phone: 814-927-5799
Fax: 814-927-2285
rob.fallon@usda.gov

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g. Braille, large print, audiotape, American Sign Language, etc.), should contact the Agency (State or local) where they applied for benefits. Individuals who are deaf, hard of hearing or have speech disabilities may contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program complaint of discrimination, complete the [USDA Program Discrimination Complaint Form](#), (AD-3027) found online at: [How to File a Complaint](#), and at any USDA office, or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by:

(1) mail: U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410;

(2) fax: (202) 690-7442; or

(3) email: program.intake@usda.gov.

USDA is an equal opportunity provider.

Introduction

This draft decision notice describes my rationale for selecting vegetation management activities in the Otter project area. The Otter project would implement the Allegheny National Forest Land and Resource Management Plan (also referred to as the Forest Plan), and includes proposed management activities that are designed to contribute to achieving the desired condition outlined in that plan. This draft decision notice incorporates by reference the Otter Environmental Assessment.

Project Area

The Otter project area includes National Forest System lands in Warrants 1568, 1778, 1783, 1830, 1858, 1863, 2038, 3232, 3251, 3252, 3254, 3265, 3278, 3283, 3284, 3656, 4537, 4846, 4847, 4848, 4849, 4856, and 4857, Highland, Jones, and Ridgway Townships, Elk County Pennsylvania. The project area lies northwest of Ridgway, Pennsylvania and encompasses approximately 14,506 acres. The project area includes approximately 5,130 acres within Management Area 2.2–Late Structural Linkages, 6,922 acres within Management Area 3.0–Even-aged Management, and 2,455 acres of private lands.

Objection Process

Regulations (36 CFR 218) require that a draft decision notice be prepared for review as part of the pre-decisional, administrative review process required for environmental assessments with an objection process as outlined in 36 CFR 218 (Federal Register, Volume 73, No. 59, pages 18481 to 18504). One primary tenet of the objection process is that eligible parties can seek resolution of their unresolved concerns based on the actions outlined in this draft decision notice, through filing an objection, prior to a final decision being made. A legal notice must be published to announce the release of this draft decision notice, which initiates a 45-day objection period. Individuals who submitted a specific written comment regarding the proposed project during any designated opportunity for public comment are eligible to file an objection for this project. Instructions for filing an objection are outlined on page 10 of this document and in the legal notice published in *The Kane Republican* (Kane, Pennsylvania).

Purpose and Need

The purpose of this project is to help achieve the desired condition described in the Forest Plan (USDA-FS 2007a) for Management Areas 2.2 and 3.0 by responding to Forest Plan, Management Area 2.2 and 3.0 goals and objectives.

Increasing early structural habitat

The Forest Plan identified desired vegetation structural distribution for the Allegheny National Forest for the year 2020. As shown in the Allegheny National Forest’s 2008–2013 monitoring report, there is a vegetation structural imbalance across the Forest (USDA-FS 2014, page 120). While mid and late structural stages are well-represented and meeting desired conditions, stands in early structural stages are falling far short of desired conditions. Only 3.8 percent of the Forest exists as early structural forest in 2015. This amount is less than half of the desired 2020 condition (USDA-FS 2007a, page 19, Errata). Currently, approximately 1 percent of the project area is in the zero to 20 age class (early structural habitat). An additional 1.5 percent of the project area was approved in previous decisions for regeneration harvests but have not been harvested yet.

The Forest Plan’s early structural vegetation objective will be met or exceeded across the forest once all our proposed and recently approved projects are implemented. However, full

implementation will take time due to a reliance on natural seedling establishment for regeneration. Since most of the forest does not already contain adequate advanced tree regeneration, we rely on a sequence of treatments to create growing conditions conducive for seedling establishment. Final harvest treatments can only occur once adequate tree regeneration is established. As a result, there can sometimes be a five, ten, or even twenty year lag between signing a project decision and completing all final harvests. As stands on the Allegheny National Forest continue to age and early structural vegetation develops into mid-structural vegetation, it is important to continue creating early structural vegetation in order to sustain this component over time. This proposal would create an additional 1,449 acres (12 percent of the project area) of early structural habitat and would help maintain the overall age class distribution described in the Forest Plan desired condition.

Creating suitable conditions for the establishment and development of desired tree seedlings

Several challenges exist for establishing desired tree seedlings on the Allegheny National Forest. These include dense shade cast by overstory, midstory, and interfering understory vegetation, preferential browsing by deer, periodic seed crops, and variable seed viability, and in some cases, the decline of potential seed trees. Desired tree seedlings do not develop in sufficient quantities on the Allegheny National Forest without intensive forest management. Interfering understory vegetation frequently outcompetes tree seedlings as a result of decades of selective deer browsing (Horsley, Stout, and deCalesta 2003). Management actions create suitable conditions for the establishment and development of desired tree seedlings, in order to maintain important ecological structure, function, and processes.

Addressing the decline of American beech, black cherry, white ash, and eastern hemlock

This project is needed to address present and future decline of American beech, black cherry, white ash, and eastern hemlock, due to non-native and native insects and diseases and other factors discussed below. If no action is taken, forest stocking levels may be reduced and could potentially result in areas with few seed trees, with forest understories dominated by interfering vegetation, including thickets of beech, striped maple, ferns, and glossy buckthorn. In some areas, few to no seed trees would remain. Stands with reduced stocking due to insects and diseases are more vulnerable to damage from windthrow, storms, and other general injury to tree crowns.

Vegetation management can improve forest health through a variety of overstory and understory treatments. Declining, mature, or poorly stocked stands can be regenerated to vigorous well-stocked young forest stands through a combination of timber harvest and reforestation treatments. Managing and regenerating declining stands now would promote natural regeneration of a diversity of desired trees. It would sustain healthy, well-stocked forested stands over the long-term. This project is designed to address forest health concerns by regenerating stands before natural regeneration opportunities are further reduced. Deferring management of these stands would likely increase the difficulty of successfully restocking them with diverse tree seedlings that would result in a more resilient future forest.

Providing a diversity of vegetation structural stages, age classes, and forest types

Forest Plan desired conditions include providing a diversity of vegetative structural stages, age classes, and forest types across the landscape within the context of multiple use management. The purpose of this project is to sustain a desirable mix of tree species to ensure a healthy,

diverse, and resilient forest. The dominant forest types on the Allegheny National Forest are upland and Allegheny hardwoods, primarily consisting of black cherry, red maple, black birch, and tulip poplar. American beech, eastern hemlock, yellow birch, and cucumbertree are common associates.

The uniformity of second growth forest across the Allegheny National Forest increases vulnerability to damage from repeated natural stresses and exotic insects and diseases. Beech bark disease¹ is an introduced insect-fungus complex which has resulted in substantial American beech mortality across the forest and in the project area. The fungus complex, introduced from Europe, results in the death of mature American beech trees. Once mortality of mature beech trees occurs, a dense thicket of beech suckers, or beech brush, is produced. As these suckers are genetically identical to the mature beech that died from the disease complex, they are also susceptible to the disease and will succumb to the disease complex in the next couple of decades. The dense regeneration of beech within the understory of infested stands prevents the establishment of other tree seedlings and creates a virtual monoculture that lacks the benefits of natural forest biodiversity (Forrester and others. 2003; Hane 2003; Latty and others 2003).

In addition to beech mortality, the health and abundance of white ash and hemlock is a growing concern on the forest. Emerald ash borer² is responsible for the rapid mortality of millions of ash trees across their range in the eastern United States and was detected on the Allegheny National Forest in 2013. The project area contains very few ash trees and most of these trees were infested with emerald ash borer and have perished. Hemlock woolly adelgid³ was also confirmed on the Forest in 2013. It is much slower spreading than emerald ash borer but is expected to similarly result in high mortality levels to eastern hemlock beginning in the coming decade.

Black cherry crown health has been declining in many areas on the Allegheny National Forest. The reasons for this decline are not entirely clear, but it is thought that decline is linked to a number of interacting factors including insect defoliations, other canopy disturbances such as wind events and loss of American beech trees to beech bark disease, changing soil nutrient status, and potentially changing climate and weather patterns. Recent monitoring conducted on the Allegheny National Forest identified increases in black cherry decline and observed mortality on the Allegheny National Forest and on the Allegheny Plateau (Long and others, personal communication 2015 unpublished; PA Bureau of Forestry 2015 unpublished). Specifically, the proportion of stand dead black cherry stems on 97 intensive forest health monitoring plots containing black cherry on the Allegheny National Forest has increased from less than 10 percent in the 1998–2001 measurement cycle to more than 22 percent in the 2014–2015 measurement cycle. Similarly, continuous forest inventory data collected on the Pennsylvania High Plateau (Allegheny National Forest region) noted an increase from around 3 percent dead black cherry stems in the 1997–2000 measurement cycle to more than 30 percent in the 2009–2013 measurement cycle.

Cherry scallop shell moth is a defoliator of black cherry, and occasionally other native cherries. The moth is a native insect to Pennsylvania and the eastern United States. The moth larvae fasten margins of leaves together and form an elongated nest, within which they feed on the upper tissues of the leaves. Once feeding is complete, the larvae will move on to construct more feeding nests. Damage to black cherry trees range from a loss of radial growth, partial crown

¹ For information on beech bark disease visit <http://na.fs.fed.us/fhp/bbd/>

² For information on emerald ash borer visit <http://na.fs.fed.us/fhp/eab/>

³ For information on hemlock woolly adelgid visit <http://www.na.fs.fed.us/fhp/hwa/>

mortality to total tree mortality, depending upon the severity (percentage of the crown) of the defoliation and the duration (how many years) of defoliation. Currently the Allegheny National Forest is in the fifth year of a cherry scallop shell moth outbreak and each year the outbreak area has increased in size. The Forest Service is monitoring cherry scallop shell moth defoliation and associated effects on overall black cherry crown health.

Non-native invasive glossy buckthorn (*Frangula alnus*) has grown from known small populations in 1990s to infestations over tens of thousands of acres in 2018. The expanding population that may impact hundreds of thousands of acres in the foreseeable future if left unchecked. These thickets can impede hunters, hikers, and wildlife moving through the forest, as well as exclude other shrubs, trees, and native herbaceous plants from establishing or remaining on site. Wherever they dominate the shrub layer, they can grow so thickly that they prevent the establishment of native species and reduce any opportunity for plant diversity. Dense thickets of buckthorn also increase shade (which reduces tree seedling growth and survival) and increase competition for water and nutrients. In all cases, the presence of the prolific buckthorn retards natural patterns of genetic variation in native species. It also threatens to impede the range of silvicultural and reforestation practices available to the Allegheny National Forest to promote a diversity of tree seedling of good quality, form, and health and maintain high quality hardwood sawtimber. Interference from non-native invasive plants is a threat to forest health and native plant communities. Monitoring and controlling the spread of invasive plant species is an important component of providing a healthy, sustainable forest ecosystem.

Potential old growth

As per the Forest Plan standard (page 115) for Management Area 3.0, a set of currently identified and mapped potential old growth areas is maintained for Management Area 3.0–Even-aged Management and these areas may be reevaluated and adjusted during project planning. There are seven stands in Management Area 3.0 within the Otter project area that were previously designated as potential old growth. Three of these stands 871049, 871073, and 885024 are being proposed for regeneration harvests due to forest health concerns.

For all of three stands, glossy buckthorn is in the understory of adjacent or nearby stands and presents an additional impediment to stand diversity and health when the beech brush succumbs to beech bark disease. And for all three stands, the need for salvage and regeneration treatments would make it unlikely that they would retain any potential for old growth characteristics.

Enhancing wildlife habitat

Inventory data and field surveys indicate a variety of habitat conditions in differing amounts occur throughout the project area. Multiple vegetative age classes occur providing cover and structure for a variety of wildlife species. Predominately maturing forest over-story trees exist, but varied vegetative conditions occur in the forest understory. Small tree and shrub conditions occur in the understory but are also present in riparian areas and herbaceous openings throughout the project area. These shrubs include mainly witch hazel, Juneberry, and muscle-wood. Vegetative wetlands and riparian areas contain varied amounts of those species as well as species associated with wetland conditions. Conifer cover is mainly in the form of hemlock and occupies the riparian areas as well as drier hilltop site conditions. Plantations of red pine, tamarack, and occasional white pine exist in some locations. Herbaceous openings, both constructed from historic management and those occurring in wetland and riparian environments exist. Snags, den trees, and coarse wood occur in some of the area providing structure and den sites for wildlife species. Non-native invasive plant species, mainly glossy buckthorn are widespread and

influence the area's condition. There is a need to enhance or create wildlife habitat for a variety of wildlife species where the conditions exist or are absent.

Reducing interference from non-native invasive plant species

The project area is undergoing a variety of changing habitat conditions. Field surveys indicate that forest health, which includes all vegetation, is being affected by a variety of non-native invasive insects, disease, and mortality, natural disturbances such as wind and storm events, and selective deer browsing in some species and some places. Non-native invasive plants are quickly adapting to changing conditions and establishing themselves in areas where native vegetation had predominately existed. Both climatic and seasonal changes will occur in both the short term and long term that will also affect wildlife habitat. Although the project area contains a variety of non-native invasive plants, glossy buckthorn is the primary threat to wildlife habitat. Because of its adaptability and proliferation abilities in a variety of growing conditions, it is present in all forms of habitat and dominates site conditions, crowding out and influencing native vegetation. There is a need to reduce non-native plant species to ensure native plant diversity and health.

Improving stream conditions

Stream habitat monitoring found that many streams in the project area lack habitat diversity that would contribute to improved habitat for aquatic animals and enhanced recreational experiences for anglers. Pools and slow water habitat are present, but lack cover and pools are generally shallow. Also, large wood monitoring on several streams shows streams lack sufficient large wood to create quality pools, slow flood flows, or store sediment and organic debris. Many streams are also lacking adequate vegetation to provide shading and to provide an adequate supply of large wood in the future.

Improving soil and water quality

Waterways in the Big Mill Creek and Bear Creek watersheds are susceptible to acid precipitation due to their location, shallow soils and parent geology with low buffering capacity (USDA-FS-2007b, page 3-27). There are 5.9 miles of streams in Otter project area that fail to meet Commonwealth water quality standards and are listed as impaired. These streams' listings note "do not attain protected water uses" due to low pH from "Atmospheric Deposition". The waters include Bloody Run and Rocky Run within the Big Mill Creek and Bear Creek Watersheds. As acid precipitation contacts with watershed soils it releases and mobilizes dissolved aluminum from the soil. The transport of dissolved phases of aluminum from watershed soils and through stream systems is toxic to fish and other aquatic life at low concentrations. There is a need to apply lime throughout Big Mill Creek and Bear Creek watersheds where it would be beneficial to soil and water resources, and in the long-term benefiting the aquatic resources. The lime would help neutralize the acidity with in soil pore water and increase pH and alkalinity of soil stormwater runoff, surficial groundwater, and waterways.

There are numerous dispersed camping sites within the project area. Many of these sites are in riparian areas. Soils and vegetation in riparian areas are very sensitive and loss of vegetation and compaction of the soil can occur rapidly. There is a need to close some dispersed campsites and improving others to mitigate the impacts to soils and water quality and to create a more sustainable dispersed camping experience.

Illegal ATV use occurs in several places across the project area, usually on powerlines and other utility corridors. Illegal riding causes soil compaction, soil erosion, and loss of vegetation. There is a need to block illegal ATV access points within the project area to reduce or eliminate impacts to soils and water quality.

Draft Decision

After reviewing the environmental analysis, supporting documents and public response, I am proposing to implement the proposed action alternative as described on pages 5–9 of the environmental assessment, as well as maps 1–7 and Appendix B of the environmental assessment, with no modifications or changes. Please note that multiple treatments and activities would occur on the same area (designated as “Stand” in Table B-1 in Appendix B).

My decision and findings are based on my expertise and knowledge of the area, as well as that of the interdisciplinary team that developed and analyzed the project, the Otter Environmental Assessment, including the project biological assessment and project biological evaluation, the Otter project record, and the Forest Plan.

My proposed decision includes timber harvest on 1,587 acres using even-aged management and uneven-aged management. The proposed timber harvest practices were briefly described in the Otter scoping documents and described in detail in the Forest Plan (USDA-FS 2007a, Appendix A, pages A-18 to A-29). Uneven-aged management would be applied on 138 acres, and even-aged management would be applied on 1,449 acres. Within the total area proposed for timber harvest, reforestation activities would be applied on 1,585 acres. The number of acres prescribed for specific reforestation activities are provided in Table 1 of the environmental assessment and by stand in Table B-1 of Appendix B.

Non-native invasive plant treatments would be applied on up to 67 acres through a combination of manual, mechanical, and chemical (herbicide) treatments. Herbicide treatment includes the use of formulations of glyphosate, sulfometuron methyl, or both according to Forest Plan standards and guidelines (USDA-FS 2007a, pages 54-59). A combination of treatments may occur several times during a growing season and over a period of several years. Additional non-native plant species treatments approved in the Marienville Buckthorn Treatment decision will also be implemented within the Otter project area.

A variety of activities would occur to restore, maintain, and enhance wildlife and aquatic habitat (see pages 4 and 5 and Table 1 of the environmental assessment [page 7]). Aquatic habitat treatments would include approximately 30.2 miles of large wood introductions and 24 acres of riparian planting. Proposed lime applications on 272 acres and recreation improvements would improve soil conditions and water quality.

Approximately 2.2 miles of road (1.2 miles using new corridors and 1.0 miles using existing corridors) would be constructed to provide access for management. Approximately 1.7 miles of road would be realigned to provide access for management. Approximately 35 miles of road would be maintained for hauling timber. High quality road surfacing would be applied to approximately 14.3 miles of road with 300 feet of streams. Approximately 11 miles of Forest Service system and non-system roads would be decommissioned. Road management changes would include approximately 4.6 miles of road (see Table 1 of the environmental assessment) and involve the installation of 8 new gates.

In some areas, the new regeneration harvests for the proposed action, when combined with past and other previously approved regeneration harvests, would create 14 temporary openings that may exceed 40 acres, ranging in size from 46 to 464 acres. As explained in the environmental assessment and noted above, I am concerned that viable seed trees are declining in these stands to the point that it will become very difficult over time to successfully regenerate the forest stands with a diversity of tree species. While the Allegheny National Forest strives to limit

temporary openings to 40 acres or less, larger openings are needed to regenerate these areas before these opportunities are lost. Specifically, these larger openings will occur where stand data shows a rapidly declining overstory resulting in reduced opportunity for natural regeneration.

We need to take advantage of the reproductive capability of stands that currently have some remaining species diversity. Otherwise, we run the risk of losing these stands to non-native invasive species such as buckthorn, or short-lived species such as diseased American beech coppice growth or black birch. The native beech and birch have a place in a diverse stand, but they will choke out species diversity if they are the only seedlings to take hold.

I took a hard look at the need to create the proposed large temporary openings, and I have considered the thoughtful public comments that have challenged us to revisit and either validate or mitigate these openings. Some of these proposed openings would exceed 40 acres based on treatments prescribed here, while others would exceed 40 acres only when considered in conjunction with treatments previously approved or already implemented in adjacent areas. In the case of the latter, the duration of the larger opening would diminish as the adjacent stands grow out of the sapling stage.

Responses to comments received during the 30-day comment period on the environmental assessment start on page 17 of this document and errata to the environmental assessment are described in a separate document.

Reasons for the decision

The purpose and need for the project include six components around which the proposed action was developed. All these components are interconnected by need to maintain habitat diversity and a resilient, healthy forest within the project area and on the Allegheny National Forest as a whole. The interaction of age classes, structural classes, and plant species contributes to maintenance of this habitat diversity and a resilient forest. Based on my review of the proposed action, the affected environment and guidance contained in the Forest Plan, I have made the following determinations:

- The proposed action contributes to achieving specific objectives for management areas as described in the Forest Plan;
- The proposed action is consistent with strategies described in the Forest Plan, which are relevant and specific to the affected resources and resource concerns;
- The proposed action is consistent with the rationale for choice of vegetation management practices (described in terms of appropriateness and optimality) as defined in Appendix A of the Forest Plan;
- The proposed action incorporates all relevant design criteria that are consistent with standards and guidelines from the Forest Plan, and;
- The proposed action is similar to other multiple-use management projects on the Marienville Ranger District, based on the size of the project area, size of individual treatment areas, scope of activities, duration of implementation, and prescribed methods.

Conclusions and recommendations in FY2008-FY2013 Monitoring Report (USDA-FS 2014) for Allegheny National Forest further support the proposed decision for the project. Specifically:

- The 2007 Forest Plan projected that early structural habitat stages resulting from timber harvest would comprise 8–10 percent of the forested landscape (USDA-FS 2007a, pages 11 and 19). However, from 2007 to 2014, early structural habitat has declined from approximately 8 percent of the forested landscape to 3.4 percent (USDA-FS 2014, page 68).
- Even-aged and uneven-aged regeneration harvests have been lower than Forest Plan objectives. Because of this, landscape-level desired vegetative structural stages and age classes will not be sustained at levels sufficient to meet desired Forest Plan ecosystem conditions (USDA-FS 2014, page 121).
- A combination of manual/mechanical treatments and herbicide use has been effective in eliminating targeted species in treatment areas (USDA-FS 2014, page 173).

Recent raw monitoring data indicates that timber harvest since 2014 may have slightly increased the percentage of early structural habitat; but this project is necessary to maintain the current percentage or move it closer to the projected level.

I carefully considered limiting opening sizes to the smallest area that would create conditions for regeneration of desirable, diverse hardwood species to improve the overall health of declining stands. However, declining forest health and diminishing opportunities to regenerate affected stands make it necessary to apply the full range of tools provided by sound silvicultural science to assure successful reforestation of these stands. Larger temporary openings tend to disperse the impacts of deer browse, allow for more cost-efficient reforestation techniques, potentially reduce the use of other regeneration tools such as fencing and herbicide, and have proven effective in regenerating stands in similar conditions. As noted above, these openings would result from a combination of harvests accomplished in this decision with the temporary openings already established by the overstory removals approved in the original decision. Within 20 years of any harvest, the new woody vegetation will have grown enough to move stands into a mid-successional stage, dividing these large temporary openings into smaller and smaller units. Regeneration will be established in a stand before the overstory is removed, and in previously harvested adjacent units, the regeneration is already well on its way to growing into a new forested stand. My proposal to establish these large temporary openings was presented to and is being reviewed by the Regional Forester.

Scenic integrity may be temporarily impacted, but this will pale next to the longer-term trajectory of a forest cover diminished by mortality, non-native invasive plants, insects and disease. And the use of the herbicide glyphosate, when applied as defined by the risk assessment for the 2007 Forest Plan, has proven invaluable in regenerating woody species and effectively contending with non-native invasive plants.

It has been implied that we miss the true value of the forest because of a desire to harvest valuable trees. Such an argument fails to note that it is the mission of the Forest Service to “sustain the health, diversity and productivity of the Nation’s forests ... to meet the needs of current and future generations.” The Allegheny National Forest is at a critical point where all the gains in species diversity over the past 30 years may be lost as one species after another is diminished by its own special non-native invader. But it is the very resilience that effective management of the past 30 years has established on the Allegheny National Forest that affords us the opportunity now to regenerate healthy young forests with a greater chance of resisting the ravages of non-native invasive species.

Considering all these factors, I am confident that the proposed action is well-grounded in the Forest Plan as a guiding document, current and consistent with recommendations from the FY2008-FY2013 Monitoring Report, and all elements of the proposed action are responsive to the purpose and need for action.

Environmental Consequences

I have carefully reviewed the analysis framework and environmental consequences for each affected resource, and I considered the potential effects in the context of the indicator measures that were composed by the interdisciplinary team for the effects analyses (Environmental Assessment, page 13, Table 6). Because the proposed action is similar to other multiple-use management projects on the Marienville Ranger District, I am confident that resource specialists on the interdisciplinary team are familiar with potential effects. No evidence was revealed in any of the comments submitted during the designated 30-day comment period for the environmental analysis, nor is any evidence in the project record that indicates any substantial uncertainty or unknown risks regarding effects of the proposed action. The effects of the various elements of the proposed action have been studied (from past projects) for over two decades. Monitoring information concerning effects and mitigation efficacy was a key part of the analysis for this proposal. The interdisciplinary team considered the best available scientific information as well as opposing viewpoints to complete all components of the environmental analysis and support a finding of no significant impact.

Other Alternatives Considered

No other action alternatives were proposed by the interdisciplinary team or the responsible official based on potential resource conflicts, and none were generated by unresolved resource conflicts revealed after thorough review of public scoping comments. Four other alternatives were requested by respondents during the scoping period. These four alternatives were considered, but not fully analyzed. The rationales for why these alternatives were not considered in detail are disclosed on pages 10 and 11 of the environmental assessment. Because of this, only the proposed action and no action alternatives were fully analyzed. I have determined this range of alternatives is adequate and follows Forest Service environmental analysis regulations at 36 CFR 220.7 for consideration of alternatives.

No Action Alternative

The no action provides a baseline for comparison of potential effects from the proposed action. In the no action, the activities described in the proposed action would not take place. Previously approved vegetation management activities would occur, as described in the environmental assessment (Table 3, page 10). Existing road uses and recreational activities would also continue. The no action alternative was not selected because it would not meet the purpose and need for the project.

Tribal Consultation

The Forest Service is consulting with the Pennsylvania Historical and Museum Commission, the State Historic Preservation Office, and the following tribes: Absentee-Shawnee Tribe of Oklahoma, Cayuga Nation, Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Oneida Indian Nation, Oneida Nation of Wisconsin, Onondaga Nation, Seneca Nation of Indians, Seneca-Cayuga Tribe of Oklahoma, St. Regis Mohawk Tribe, Shawnee Tribe, Stockbridge-Munsee Band of Mohican Indians, Tonawanda Band of Seneca, and Tuscarora Nation, in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. All proposed management activities in this project will be reviewed by

these agencies for potential effects to cultural resources.

Public Involvement

The Otter project was first listed in the Allegheny National Forest Schedule of Proposed Actions in the January 2019 issue. On December 21, 2018, a scoping package was mailed to interested individuals and organizations, including adjacent landowners and subsurface mineral owners, and posted on the Allegheny National Forest website on December 21, 2018. A news release was sent to local media on December 18, 2019. The public scoping period for the project ended on January 22, 2019. Comments were received from three respondents. These comments were analyzed by the interdisciplinary team, and the comments and responses are included in the environmental assessment (Appendix A–Scoping Comments Summary).

None of the scoping comments provided any new site-specific information, either in the form of focused, applicable peer-reviewed studies conducted at the local or regional level, or in the form of site or resource conditions not previously identified by the interdisciplinary team. Because of this, no alternatives to the proposed action were formulated to address the purpose and need for the project or advanced for full analysis in the environmental assessment presented for 30 day comment.

The environmental assessment was made available to the public for review during a designated 30-day comment period, which began on June 26, 2019 when a legal notice was published in *The Kane Republican* (newspaper of record). Four individuals submitted comments during the 30-day comment period on the environmental assessment. Comments were analyzed by the interdisciplinary team, and the comments and responses are included in this document starting on page 17.

I have reviewed comments received as a result of public scoping, those received during the 30 day comment period for the environmental assessment, and the responses to these comments composed by resource specialists on the interdisciplinary team. I truly appreciate the time and effort taken by members of the public to share their thoughts and concerns regarding this action, and I recognize that my decision may not satisfy all concerns expressed in the comments. These comments often reflect disagreement with the goals, objectives and management direction contained in the Forest Plan. Because the purpose and need for the project is to achieve certain resource goals identified in the Forest Plan, these comments are beyond the scope of the project. Consistent with the record of decision for the Forest Plan (USDA-FS 2007a, page ROD-15), I believe that the proposed action balances sustainable resource use and ecological sustainability in a manner intended to satisfy competing public demands.

Findings required by other laws and regulations

My decision implements vegetation management activities and connected actions intended to develop desired conditions in the Forest Plan. As required by the National Forest Management Act section 1604(i), I find this project to be consistent with the 2007 Allegheny National Forest Land and Resource Management Plan. This decision is also in full compliance with the laws and regulations cited below, with reference to relevant page numbers in the environmental assessment.

Archaeological Resources Protection Act – Environmental assessment, page 45.

Clean Air Act – Environmental assessment, pages 41–45.

Clean Water Act – Environmental assessment, pages 30–40.

Endangered Species Act – Project biological assessment and summarized in environmental assessment on page 20.

Environmental Justice (Executive Order 12898) – Public involvement did not identify any adversely impacted local minority or low-income populations. My decision is not expected to adversely impact minority or low-income populations.

Federal Cave Resources Protection Act – No known cave resources would be affected by my decision.

Floodplains (Executive Order 11988) – Environmental assessment, pages 30–40.

National Environmental Policy Act – This act requires public involvement and consideration of potential environmental effects. The entirety of documentation for this decision supports compliance with the National Environmental Policy Act.

National Historic Preservation Act – Environmental assessment, page 45.

Native American Graves Protection and Repatriation Act – No Native American grave sites are known nor were any identified as a result of public scoping or consultation with tribal representatives.

Regional Forester Sensitive Species (Forest Service Manual 2670) – project biological evaluation and summarized in the environmental assessment on pages 21–22.

Wetlands (Executive Order 11990) – Environmental assessment, pages 30–40.

Wild and Scenic Rivers Act – The project area does not include or affect any designated Wild and Scenic River.

Administrative Review and Objections Process

The proposed decision is subject to an objection review process pursuant to 36 CFR 218, subparts A and B. These regulations are available at: <http://www.gpo.gov/fdsys/pkg/FR-2013-03-27/pdf/2013-06857.pdf>. Objections will only be accepted from those who submitted timely and specific written comments about this project during scoping or the 30 day public comment period in accordance with 36 CFR 218.5(a). Issues raised in objections must be based on previously submitted timely, specific written comments regarding the proposed project unless based on new information arising after the designated comment opportunities.

A legal notice regarding the availability of this draft decision notice will be published in the newspaper of record, which is *The Kane Republican* for this project. A written objection, including any associated attachments must be submitted within 45 calendar days after publication of the legal notice in *The Kane Republican*. However, when the 45-day filing period would end on a Saturday, Sunday, or federal holiday, the filing time is extended to the end of the next federal working day. The date of the publication of this notice is the only means for calculating the date by which objections must be received; do not rely upon any other source for this information.

Objections, including attachments, must be filed by mail, fax, express delivery, messenger service, email or hand-delivery to: USDA-Forest Service, Eastern Region, Objection Reviewing Officer, 626 E. Wisconsin Avenue, Milwaukee, WI 53202; FAX to (414) 944-3963, Attn: Administrative Review Staff; email to: objections-eastern-region@fs.fed.us; hand-delivery

Monday through Friday, 8:00 a.m. to 4:30 p.m., excluding federal holidays. Acceptable formats for electronic objections are text or html email, Adobe portable document format (pdf), and other formats viewable in Microsoft Office applications.

Final Decision

If no objections are filed within the 45-day time period for this draft decision, then a final decision may occur on, but not before, the 5th business day following the end of the objection filing period. If an objection is filed, a final decision will not be signed until all concerns and instructions (identified by the Reviewing Officer) have been addressed (36 CFR 218.12[b]).

For additional information concerning this decision, please refer to the Allegheny National Forest web site for the project at <https://www.fs.usda.gov/project/?project=55025>. You may also contact Kevin Treese, Planning Team Leader, at the Marienville Ranger Station, 131 Smokey Lane, Marienville, PA 16239 or by phone (814) 927-5759.

Finding of No Significant Impact

As the responsible official, I am responsible for evaluating the effects of the project relative to the definition of significance established by the CEQ Regulations (40 CFR 1508.13). I have reviewed and considered the environmental assessment and documentation included in the project record, and I have determined that the proposed action will not have a significant effect on the quality of the human environment. As a result, no environmental impact statement will be prepared. My rationale for this finding is as follows, organized by sub-section of the CEQ definition of significance cited above.

Context

For the proposed action and the no action alternatives, the context of the environmental effects is based on the environmental analysis in this environmental assessment. The Otter project was proposed to achieve long-term desired conditions identified in Allegheny National Forest Record of Decision for the Final Environmental Impact Statement and the Forest Plan. The proposed action would achieve Forest Plan goals and meet specific objectives for early structural habitat, structural and age class diversity, non-native invasive plant reduction and control, and wildlife habitat diversity. All applicable Forest Plan standards and guidelines were applied to project design.

The project area includes approximately 2.3 percent of National Forest System lands within the Allegheny National Forest. The total area proposed for timber harvest comprises about 13.2 percent of National Forest System lands within the project area and approximately 0.003 percent of all National Forest System lands within the Allegheny National Forest. Combined with reforestation, wildlife habitat enhancement, nonnative invasive plant treatment activities and timber management activities approved in previous NEPA decisions, approximately 24.8 percent of National Forest System lands land within the project area would be treated in some manner over 20 years.

Intensity

Intensity is a measure of the severity, extent, or quantity of effects, and is based on information from the effects analysis of this environmental assessment and the references in the project file. I have determined that the interdisciplinary team considered the effects of this project appropriately and thoroughly with an analysis that is responsive to concerns and issues raised by the public. They took a hard look at the environmental effects (both beneficial and adverse) using relevant scientific information and their knowledge of site-specific conditions gained from field visits. Benefits of this project were not used to offset adverse impacts, and adverse impacts of this project are not significant even when separated from benefits (Environmental Assessment, pages 16–56). My finding of no significant impact is based on the intensity of effects using the ten factors identified in 40 CFR 1508.27(b).

1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect will be beneficial.

The interdisciplinary team analyzed effects of the proposed action and no action by addressing 11 indicator measures within the context of eight resource categories. Potential effects for each indicator measure were determined independent of one another and in concert with one another where clear interactions between resources could be identified. The analyses documented in the Environmental Consequences of the Proposed Action and Alternatives section of the environmental assessment (pages 11–56) state that some direct and indirect effects are expected in the context of the analysis area. The interdisciplinary team has applied project design features

to the proposed action to ensure that even direct and indirect effects to these resources will not be significant. None of the direct and indirect effects are expected to result in any significant cumulative effect to any resource or indicator measure.

The environmental assessment, appendices, and project file also includes detailed analyses of the effects of the alternatives to vegetation and forest health; wildlife and sensitive plants; non-native invasive plants; soils and hydrology; air quality; heritage resources; recreation opportunities, forest settings and unique areas; and human health and safety. These analyses contribute to my understanding of the effects of the alternatives and confirm that there will be no significant effects to those resources.

2. The degree to which the proposed action affects public health or safety.

Implementation of the proposed action will not result in any significant increased risks to public health and safety. The environmental assessment (pages 54–56) considered risks to public health or safety as one of 11 indicator measures for environmental analysis. Analysis of this indicator measure focused on herbicide use, smoke emissions from prescribed fire, and vehicle traffic associated with vegetation management activities. The proposed action would avoid adverse impacts to public health and safety through implementation of Forest Plan standards and guidelines, Pennsylvania best management practices, project design features, timber sale contract requirements, Office of Safety and Health Administration requirements, and standard operating safety procedures.

3. Unique characteristics of the geographic area such as the proximity to historical or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas.

The interdisciplinary team considered potential effects to unique characteristics of the landscape in the environmental analysis:

- Prime farmland and farmland of statewide importance would increase by a net of 11.1 acres due to proposed road decommissioning (Environmental Assessment, page 27).
- Approximately 326 acres of wetlands designated as part of the National Wetland Inventory are within the project area (Environmental Assessment, Table 5, page 12). Forest Plan standards and guidelines will be applied to buffer these and other small forested wetland areas (not included in the National Wetland Inventory) from project activities so that these areas will not be affected by project activities.
- The closest wild and scenic river is the Clarion Wild and Scenic River, which is approximately 2.8 miles south of the project area (Environmental Assessment, page 16). The closest designated wilderness area is approximately 23.3 miles to the northwest (Otter Environmental Assessment, page 12) of the project area, and the closest wilderness study area is approximately 18.3 miles to the north (Environmental Assessment, page 12) of the project area.
- No parklands or other ecologically critical areas are within or adjacent to the project area. See intensity factor number 8 for historical or cultural resources.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The effects on the quality of the human environment are not likely to be highly controversial. Proposed treatments are based on well-established methods applied throughout the region on private and public forest lands. The rationale for choice of vegetation management practices to be applied is well-described in the Forest Plan.

Comments submitted during the scoping period raised questions about potential scientific dispute regarding the use of the herbicide glyphosate (Environmental Assessment, Appendix A Scoping Comments Summary, pages A-6–A-9). The interdisciplinary team reviewed the literature cited in the comments and determined that no substantial scientific dispute was evident. Based on the regulatory definition, there is no substantial dispute among the scientific community as to the size, nature, or effects of implementing the proposed action on the biological, and physical and social environments.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

No evidence was revealed in any of the components of the environmental analysis, nor is any evidence in the project record that indicates any substantial uncertainty or unknown risks regarding effects of the proposed action. The effects of the various elements of the proposed action have been studied (from past projects) for at least a decade. Monitoring information concerning effects and mitigation efficacy was a key part of the analysis for this proposal. The interdisciplinary team considered the best available scientific information as well as opposing viewpoints.

The conclusions of these local resource experts are described in the environmental assessment effects discussions. Much is known regarding the outcomes when using even-aged management on the Allegheny National Forest. Outcomes from using uneven-aged management are less certain. Consequently, the Forest Plan (USDA-FS 2007a, pages ROD-26 and ROD-50) places an emphasis on monitoring these treatments and a flexible adaptive approach to vegetation management (USDA-FS 2007a, page ROD-22). Any future decisions will need to consider all relevant scientific and site-specific information available at that time.

6. The degree to which the action may establish precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The proposed action does not establish a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration. The size of the project area, size of individual treatment areas, scope of activities, duration of implementation, and prescribed methods are typical of other multiple-use management projects on the Marienville Ranger District. All management activities are consistent with Forest Plan direction for affected management areas and resources and are intended to directly address and achieve Forest Plan objectives.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

No cumulatively significant impact on the environment is anticipated based on environmental analysis. The proposed action is related to other actions with individually insignificant effects in the context of past, present and reasonably foreseeable actions on both National Forest System and private lands within the project area. Past and present actions are reflected in the description of the existing condition (Environmental Assessment, pages 11-12). Reasonably foreseeable actions are described as those approved in previous NEPA decisions (Environmental Assessment, page 9–10 and Table 3) that have not been implemented, as well as projected future oil and gas development of the private mineral estates. The interdisciplinary team considered the potential for the proposed action to contribute to potentially significant cumulative effects to each of the indicator measures based on an analysis area and time frame unique to each affected resource (Environmental Assessment, Table 7, pages 14–16). The environmental analysis found that the proposed action was not likely to contribute to any significant effect to any resource based on this relationship.

8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.*

The project area has been inventoried for heritage resources. The proposed action would not adversely affect any districts, sites, highways, structures, or objects currently listed, eligible for listing, or unevaluated for listing in the National Register of Historic Places. Heritage resources have been delineated and buffered for protection or avoided. There are no concerns regarding research sited within the Otter project area. All studies within the project area are closed (project file). Therefore, no effects to heritage or scientific resources are anticipated with implementation of the proposed action.

9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*

There is no designated critical habitat for any federally threatened or endangered species on the Allegheny National Forest. Based on the project biological assessment (located in the project file), a "no effect" determination was reached for the small-whorled pogonia, northeastern bulrush, and the following mussel species: northern riffleshell, clubshell, rayed-bean, sheepsnose, snuffbox, and rabbitsfoot. These project level activities and determinations are within the level of actions analyzed in the biological evaluation for the Forest Plan. A concurrence letter on the biological evaluation for the Forest Plan, dated January 31, 2007, was received from the U.S. Fish and Wildlife Service.

The northern long-eared bat was listed by the U.S. Fish and Wildlife Service as "threatened" under the Endangered Species Act on April 2, 2015 (USDI-FWS 2015). The project biological assessment has determined that project activities "may affect, likely to adversely affect" the northern long-eared bat and will not jeopardize the continued existence of the species. Project activities are consistent with the U.S. Fish and Wildlife Service programmatic biological opinion on implementing the final 4(d) rule as well as activities that do not require special exemption from taking prohibitions applicable to the northern long-eared bat (USDI-FWS 2016a). Therefore, any taking that may occur incidental to project activities is not prohibited under the final 4(d) rule (50 CFR § 17.40(o)) (USDI-FWS 2016b); and the U.S. Fish and Wildlife Service programmatic biological opinion satisfies the Forest Service's responsibilities under the Endangered Species section 7(a)(2) relative to the northern long-eared bat for this project.

The primary factor cited in the proposed listing rule responsible for the decline of northern long-eared bat populations is white-nose syndrome. The U.S. Fish and Wildlife Service (2013) determined that although several activities, such as construction of physical barriers at cave accesses, mining, development, and timber harvest may modify or destroy northern long-eared bat habitat, these activities alone do not have significant, population-level effects on the species.

The impact of this project on individuals and habitat is not expected to adversely affect the conservation and recovery efforts for the species for several reasons, including but not limited to the following:

- a. Forest management and silviculture are vital to the long-term survival and recovery of the northern long-eared bat and the U.S. Fish and Wildlife Service have determined that when the prohibitions for the species included in the final 4(d) rule are applied to forest management activities, the potential impacts will be significantly reduced (USDI-FWS 2016b).
- b. Conducting timber harvest activities or tree removal outside the hibernation period could conceivably result in direct mortality or injury to northern long-eared bat by incidental felling of roost trees, particularly if non-volant bats are present. In areas of extensive intact forest, the likelihood that a given harvest will result in the loss of a maternity colony is small. Suitable habitat, as well as potential maternity roosts and day roosts, are abundant and widely distributed across the project area. Additionally, there are well over 18.9 million potential roost trees on the Allegheny National Forest (Miles 2015). The likelihood of direct mortality from prescribed fire is extremely low as the proposed burning would occur in early spring or fall. Timber harvest is an important tool that could improve forest structure by creating canopy gaps and snags, by reducing stand density and midstory clutter, and by increasing forest diversity to maintain suitable roosting and foraging habitat.
- c. This project would provide protection for the northern long-eared bat during its most sensitive life stages. There are no known occupied maternity roosts in the project area, and there are no activities proposed within ¼ mile of known hibernacula. Should maternity roosts be located in the vicinity of proposed activities in the future, conservation measures will be applied to avoid cutting or destroying them unless they are in immediate safety hazard.
- d. Forest Plan standards and guidelines implemented for Indiana bat (USDA-FS 2007a, pages 81–82, USDI-USFWS 2007) will minimize potential harm or harassment to this species and retain key habitat components at the stand and landscape level.

10. Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.

The proposed action complies with federal, state, and local laws and requirements imposed for the protection of the environment. These include the Clean Water Act, Wetlands and Floodplains Executive Orders, the Endangered Species Act, The National Historic Preservation Act, the National Environmental Policy Act, and the National Forest Management Act. The proposed action complies with all Forest Plan desired conditions, objectives, standards, and guidelines.

Response to comments received during the designated 30-day comment period

Four responses were received during the designated 30-day comment period for the environmental assessment. Comments were submitted by the Borough of Ridgway, Pauline Steinmeyer, Richard Mauk, and Dick Artley.

Mr. Artley frequently comments on projects proposed by the Allegheny National Forest and other forests across the nation. Similar comments, for example, were submitted on at least 11 previous Allegheny National Forest projects (Greater Stickney, Izenbrown, Millsteck, Salmon East, Salmon West, Bradford Restoration, Chaffee, Hoover, De Young Supplemental Environmental Assessment, Porkey Heights Supplemental Environmental Assessment, and Pine Bear Supplemental Environmental Assessment). He also submitted comments during the scoping period for this project (Otter).

The comments received from Mr. Artley typically, but do not exclusively, focus on timber harvesting, road construction, glyphosate application, public opinion, interpretations regarding compliance with various laws, and general opinions or position statements. Along with the comments submitted, Mr. Artley frequently provides a long list of references to newspaper articles, editorials, magazines, and other publications. These references are identified by Mr. Artley as “opposing views.”

We appreciate Mr. Artley’s dedication to improving land management and have provided due consideration to the comments and attachments received. His comments, which were submitted by email, included 32 statements and four opposing views attachments (attachments 1, 4, and 27). Mr. Artley’s comments are clearly labeled in the body of his email. They are indented using the word “Comment” in bold, purple, Arial font, and underlined. The text of the comment is bold, green, Arial font. Comments were numbered by the Forest Service for easy reference.

Comment 1 (Artley): Ranger Fallon, I ask you and your IDT members to have the courage to read the science conclusions of independent scientists not affiliated with the USFS in the Glyphosate kills attachment. You already know the USDA ignores the independent science that shows glyphosate causes cancer. You also know you are not required to apply herbicides that contain glyphosate.

***Response:** The Glyphosate kills attachment was submitted with Mr. Artley’s scoping comments. This attachment pertains to the application of glyphosate, and is similar, but not identical, to attachments reviewed in the past (for example: attachment 9a considered in Salmon East, Salmon West, Millsteck, Bradford Restoration, and Greater Stickney; attachment 18 considered in Salmon West and Millsteck; Glyphosate Kills 1 considered in Salmon East; and Glyphosate Kills 2 considered in Salmon West.). Our response on pages A-8 and A-9 of the Appendix A–Scoping Comments Summary for the Otter Environmental Assessment is incorporated by reference.*

In addition, the following factors apply to herbicide use on the Allegheny National Forest by the Forest Service:

- *Forest plan standards and guidelines for pesticide application (which includes herbicides and insecticides) would be applied (USDA-FS 2007a, pages. 54–59) and are based on the human health risk assessment (USDA-FS 2007b, Appendix G)*

- completed for the forest plan final environmental impact statement (USDA-FS 2007b).*
- *Risks to human health and safety, including risks from herbicide use are evaluated in the Chaffee Environmental Assessment (pages 65–66).*
 - *The Chaffee environmental analysis also incorporated results of a more recent human health and ecological risk assessment published in 2011 by Syracuse Environmental Research Associates (SERA 2011) which examined potential hazards from use of glyphosate.*
 - *The rationale for herbicide use on the Allegheny National Forest is discussed in Appendix A–Rationale for Choice of Vegetation Management Practices (USDA-FS 2007a, Appendix A, pages. A-32–A-45) of the forest plan.*
 - *Treated areas amount to a very small percentage (less than 0.5 percent annually over the last 5 years [2012–2016]) of the landscape being managed.*
 - *Herbicides that are used are very low in toxicity.*
 - *Herbicides are applied at very low rates (0.05 to 1 percent concentrations per acre).*
 - *There is negligible risk to human health or wildlife and/or aquatic resources.*
 - *They do not bio-accumulate in the ecosystem (they degrade into inert substances in a matter of weeks in the soil through microbial and photo processes).*
 - *They are only applied once or twice (generally) to an area, over the rotation of a stand of trees (around 100 years).*
 - *Vegetation in treated areas recovers quickly and is often more diverse and desirable (e.g. tree seedlings established) than prior to treatment.*

Comment 2 (Artley): Ranger Fallon, it is not only possible but highly likely that your logging and slash/RX burning will harm the habitat and/or kill individual birds. This is especially true of young birds that cannot flee the danger. The Treaty requires the NEPA document to include information showing why the following damage will not occur. The plaintiffs’ attorney will expect the NEPA document to contain specific action that you will take to prevent:

“harm the birds with logging-related pollution”,
 “detrimentally alter the bird’s habitat”,
 “environmentally degrade the area surrounding the bird’s habitat”, and
 “kill bird chicks by destroying their nests or eggs”.

Note: The 4 quotes above come directly from the Act.

The Otter draft EA doesn’t come close to complying with the Act. It does not mention “migratory bird.” I suggest before you form another IDT you consider adding a wildlife biologist.

Response: *The Migratory Bird Treaty Act does not apply in the context of forest management. In the project wildlife reports, which includes the project biological assessment (pages 7 and 27), “migratory birds were considered in the Forest Plan Final Environmental Impact Statement (USDA-FS 2007b, page 3-208) and included as part of the species viability evaluation. Migratory birds that occur on the Allegheny National Forest that were determined to have viability concerns were analyzed as part of the species viability process. The rationale and process for determining the status and listing of species and the Forest-wide effects of management are in the Forest Plan Final Environmental Impact Statement on pages 3-205 to 3-208 (USDA-FS 2007b) and Appendix E of the Forest Plan Final Environmental Impact Statement (USDA-FS 2007b)”.*

The migratory birds that are currently listed as species with viability concern were analyzed in the Otter Environmental Assessment for effects of the proposed alternative. Information on these and other bird species can be found in the project wildlife report, which includes the project biological evaluation. The species analyzed are as followed: northern goshawk (Regional Forester's Sensitive Species), cerulean warbler (species with viability concern), ruffed grouse (game species), American woodcock (game species), wild turkey (game species), black-throated blue warbler, (species with viability concern), Henslow's sparrow (species with viability concern), golden-winged warbler (species with viability concern), great blue heron (species with viability concern), red-shouldered hawk (species with viability concern), raven (species with viability concern), osprey (species with viability concern), and Swainson's thrush (Regional Forester Sensitive Species).

Proposed burning for warm season grasses in herbaceous openings would be done in early spring or late fall to protect wildlife species and optimize successful burning conditions. To protect birds during the nesting season, the forest plan guideline "Site preparation, cleaning and weeding treatments that remove saplings from forested stands should occur outside the songbird nesting season (April 1 to June 30) (USDA-FS 2007a, page 80)" will be followed. Additional forest plan standards and guidelines for bird species are listed in the project wildlife report on pages 18–23.

A list of the bird species found in and near the project area can be found in the project file and includes results of the Pennsylvania Breeding Bird Atlas Surveys and Forest Service songbird surveys for the area.

Comment 3 (Artley): Ranger Fallon, your References section does not contain the following important literature or comparable literature; therefore your migratory bird discussions are based on unsubstantiated speculation. The public expects more from a professional wildlife biologist.

DeGraaf, R. M., Rappole, J. H. 1995. Neotropical migratory birds: natural history, distribution, and population change. Comstock Publishing Associates. Cornell University Press, Ithaca, New York

Migratory Bird Treaty Act. 1918. 16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755, as amended. NatureServe. 2015. NatureServe Explorer: An online encyclopedia of life [web application]. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Memorandum of Understanding between the U.S. Department of Agriculture, Forest Service and the U.S. Fish and Wildlife Service to Promote the Conservation of Migratory Birds. (December 08, 2008).

Response: See response to comment 2.

Comment 4 (Artley): Ranger Fallon, the USFS expects you to lie to the public about the reasons climate change conditions have passed the point of no return. You know if you don't lie you can forget future promotions. Read this:

Excerpt:

“ “There's 400 gigatons [of carbon] now, in the 3 trillion trees, and if you were to scale that up by another trillion trees that's in the order of hundreds of gigatons captured from

the atmosphere – at least 10 years of anthropogenic emissions completely wiped out,” he said.

Planting trees is great, but I can't help thinking we also need to stop chopping down forests in the first place. When you chop down a tree, you destroy the entire ecosystem that depended on it. Planting a new tree doesn't bring that back.”

https://www.treehugger.com/climate-change/heres-how-many-trees-it-would-take-cancel-out-climate-change.html?utm_source=TreeHugger+Newsletters&utm_campaign=2f7b7440f5-EMAIL_CAMPAIGN_11_16_2018_COPY_01&utm_medium=email&utm_term=0_32de41485d-2f7b7440f5-243777253

Response: As noted in the Otter scoping proposal, the Forest Adaptation Resources Workbook (Swanston and others 2016) was used to consider the impacts of climate change on the Otter project. The interdisciplinary team used the workbook to consider a variety of adaptation actions that may be needed within the project area. The interdisciplinary team concluded that the actions associated with purpose and need for the project, as well as those required by the Forest Plan, already provide necessary adaptation needs. For example, proposed vegetation management would promote resistance to extreme weather (i.e., wind, drought) and insect and disease outbreaks. Healthy forests are more resilient to changing conditions and more resistant to disease, pests, fire, and extreme weather. These stresses are likely to increase with climate change. Adaptation actions are also addressed through project design features and Forest Plan standards and guidelines. Examples include the protection and enhancement of habitat of threatened and endangered species and Regional Forester sensitive species; non-native invasive species control; and restoration of native plant communities.

Air quality and carbon sequestration were also addressed in Appendix A–Scoping Comments Summary response to comment 5 on page A-10. The Forest Service recently completed a forest carbon assessment for the Allegheny National Forest and a project scale carbon analysis for the Otter project. The forest level carbon assessment show that forests in the Allegheny National Forest are maintaining a carbon sink. Forest carbon stocks increased by about 21 percent between 1990 and 2013, and negative impacts on carbon stocks caused by disturbances and environmental conditions have been modest and exceeded by forest growth. According to satellite imagery, timber harvesting has been the most prevalent disturbance detected on the Allegheny National Forest since 1990. However, timber harvests during this period have been relatively small and low intensity. Forest carbon losses associated with harvests have been small compared to the total amount of carbon stored in the Allegheny National Forest, resulting in a loss of about 2.53 percent of non-soil carbon from 1990 to 2011. These estimates represent an upper bound because they do not account for continued storage of harvested carbon in wood products or the effect of substitution. Carbon storage in hardwood forest products sourced from national forests increased since the early 1900s. Recent declines in timber harvesting have slowed the rate of carbon accumulation in the product sector.

The biggest influence on current carbon dynamics on the Allegheny National Forest is the legacy of intensive timber harvesting and land clearing for agriculture during the 19th century, followed by a period of forest recovery and more sustainable forest management beginning in the early to mid-20th century, which continues to promote a carbon sink today (Birdsey and others 2006). However, stands on the Allegheny National Forest are now

mostly middle to older aged. The rate of carbon uptake and sequestration generally decline as forests age. Accordingly, projections from the Resource Planning Act assessment indicate a potential age-related decline in forest carbon stocks in the Salmon East Project (all land ownerships) beginning in the 2020s.

Climate and environmental factors, including elevated atmospheric CO₂ and nitrogen deposition, have also influenced carbon accumulation on the Allegheny National Forest . Despite warming temperatures and precipitation variability, climate has continued to have a positive effect on carbon accumulation over the historical period. Likewise, increased atmospheric CO₂ and nitrogen deposition may have enhanced growth rates and helped to counteract more recent ecosystem carbon losses due to historical disturbances and aging.

The effects of future climate conditions are complex and remain uncertain. However, under changing climate and environmental conditions, forested stands on the Allegheny Plateau may be increasingly vulnerable to a variety of stressors. These potentially negative effects might be balanced somewhat by the positive effects of longer growing season, greater precipitation, and elevated atmospheric CO₂ concentrations. However, it is difficult to judge how these factors and their interactions will affect future carbon dynamics on the Allegheny National Forest .

Forested area on the Allegheny National Forest NF will be maintained as forest in the foreseeable future, which will allow for a continuation of carbon uptake and storage over the long term. Across the broader region, land conversion for development on private ownerships is a concern (Shifley and Moser 2016) and this activity can cause substantial carbon losses (FAOSTAT, 2013). The Allegheny National Forest will continue to have an important role in maintaining the carbon sink, regionally and nationally, for decades to come.

The project level carbon assessment shows that the proposed project affects a relatively small amount (less than 1 percent) of forest land and carbon on the Allegheny National Forest and might temporarily contribute an extremely small quantity of greenhouse gas emissions relative to national and global emissions. This proposed action will not convert forest land to other non-forest uses, thus allowing any carbon initially emitted from the proposed action to have a temporary influence on atmospheric greenhouse gas concentrations, because carbon will be removed from the atmosphere over time as the forest regrows. Furthermore, the proposed project will transfer carbon in the harvested wood to the product sector, where it may be stored for up to several decades and substitute for more emission intensive materials or fuels. This proposed action is consistent with internationally recognized climate change adaptation and mitigation practices.

Emissions from proposed activities are discussed in the Air Quality Section on pages 40–44 and displayed in Table 14 on pages 42–43 of the environmental assessment. On page 42 of the environmental assessment, the analysis for the environmental assessment found that the cumulative effects of past, present, and reasonably foreseeable future federal and non-federal actions are not expected to bring any of the criteria air pollutants currently in attainment to levels that exceed the National Ambient Air Quality Standards, nor are these actions expected to have any noticeable effect on ambient SO₂ levels. The project record includes additional documents that support the analysis.

Uncertainty exists regarding the effects the Otter project may have on climate change, as well as the effects climate change may have on this area over the long-term. Because there is

currently no reliable way of predicting future climate change or its effects at the project level, the forest plan provides for maintaining a diversity of plant and animal communities that will enhance the resiliency of the forest to respond to these changing conditions. The forest plan also provides for monitoring forest vegetation for significant changes to forest health and forest threats that are present (USDA-FS 2007a, page. 50). The final environmental impact statement to the forest plan further discusses climate change, and some of the uncertainties associated with predicting the effects on forest vegetation on pages 3-83 to 3-84 (USDA-FS 2007b).

Strategies to address uncertainty include flexible approaches and adaptive strategies that include managing for ecosystem resistance, resilience, and adaptation (Millar and others 2007). Ecosystem resistance refers to the ability of ecosystems to resist changes in function and process caused by disturbances. Ecosystem resilience refers to the ability of ecosystems to return their original function and processes following disturbance. Adaptation refers to the ability of ecosystems to adapt to changing conditions. To maintain forest ecosystem resistance and resiliency, and therefore integrity, particularly in the face of uncertainties such as future climates, and insect and disease infestations, the forest plan emphasizes sustaining a diversity of forest structures and species composition across the landscape, using a flexible, adaptive approach (USDA-FS 2007a, pages. ROD-24, 14, and A-2). By sustaining a diversity of forest structures and species, the Allegheny National Forest will be better prepared to recover from larger scale disturbances, such as that which may result from climate change. Otter vegetation treatments are designed to be adaptive and contribute towards these forest plan goals and desired conditions, particularly that of sustaining a diversity of vegetation patterns and species composition across the Allegheny National Forest landscape.

Comment 5 (Artley): Ranger Fallon, you conveniently omit research that finds logging emits more CO₂ than wildfire. Here's an excerpt from Oregon State University researcher Beverly Law and her colleagues' research conclusions:

Climate change is a major issue world-wide. So what do you propose to do? Make it worse by logging 2.5 square miles.

Link to research conclusions:

<https://mountainwestnews.org/harvesting-co2-2d88711b644d>

Response: See response to comment 4.

Comment 6 (Artley): National Geographic magazine features logging's effect in climate change. Here are excerpts from the article at the link below:

"Modern-Day Plague

Deforestation is clearing Earth's forests on a massive scale, often resulting in damage to the quality of the land. Forests still cover about 30 percent of the world's land area, but swaths half the size of England are lost each year."

"Deforestation can have a negative impact on the environment. The most dramatic impact is a loss of habitat for millions of species. Eighty percent of Earth's land animals and plants live in forests, and many cannot survive the deforestation that destroys their homes.

Deforestation also drives climate change. Forest soils are moist, but without protection from sun-blocking tree cover, they quickly dry out. Trees also help perpetuate the water cycle by returning water vapor to the atmosphere. Without trees to fill these roles, many former forest lands can quickly become barren deserts.”

http://www.nationalgeographic.com/environment/global-warming/deforestation/?utm_source=NatGeocom&utm_medium=Email&utm_content=video_20170811&utm_campaign=WatchThis_PM&utm_rd=917302404

Response: No deforestation is proposed as part of the Otter project. Please see response to comment 4.

Comment 7 (Artley): Forests are natural carbon sinks. Carbon sinks absorb carbon dioxide. Un-manipulated (unlogged) Forests reduce the concentration of greenhouse gases into the atmosphere and delay the sordid effects of climate change. Trees store carbon dioxide. When the trees are removed (logged or burned) the stored carbon dioxide is released into the atmosphere.

Response: Please see response to comment 4.

Comment 8 (Artley): Dr. Moyer’s article stressing the fact that live trees capture the greenhouse gas carbon published in the *Huffington Post* in 2014 states:

“Trees are our climate saviors, and it takes decades or centuries — time we don’t have — to recover from the mistake of cutting them down.”

“Photosynthesis is one of only two significant mechanisms for removing carbon dioxide from the atmosphere.”

“Uncut forests store more carbon than do forests that are logged, and the loss of carbon is proportional to the extent of harvesting. Over two-thirds of the total carbon in forest ecosystems is stored in forest soil, and significant release of soil carbon occurs from logging.”

Link: http://www.huffingtonpost.com/ellen-moyer-phd/trees-are-our-climate-logging_b_4775894.html

Ranger Fallon, you clearly believe the trees in the Allegheny National Forest don’t Photosynthesize or Dr. Moyer doesn’t know what she’s talking about. Which is it?

Response: Please see response to comment 4.

Comment 9 (Artley): As you can see above, 40 CFR 1502.9(b) requires meaningful responses to all “responsible” opposing views. If the Responsible Official feels the opposing view is irresponsible then please describe why. The law does not exclude opposing views because of the source. Opposing views contained in newspapers, magazines, and other sources are still opposing views and require a response. Please do not conclude an opposing view is not responsible because they are opinions. “Viewpoint” and “opinion” are synonyms.

Comment 10 (Artley): Please do not conclude that an opposing view is not “responsible” because it not site-specific. A review of the References section of this draft EA reveals that NONE of your many Reference documents mentions the name of the project. Thus, your

references are not site specific. Ranger Fallon, you cannot justify using a standard for the public and another less-restrictive standard for the USFS. What will the judge say?

Literature and Opposing Views Citations: The comments numbered 9 and 10 pertain to literature cited and the “opposing views” references provided in attachments 1, 4, and 27.

***Response to comments 8 and 9:** The Otter Environmental Assessment was written by a well-qualified interdisciplinary team using best available scientific information. Members of the interdisciplinary team are considered proficient in their field of study by way of academic achievement, agency training, years of professional experience, and in some cases, certification programs. Team specialists identified the methods used in their analyses and referenced the scientific sources upon which their analyses were based (refer to the Literature Cited section in the environmental assessment). The appendices and project record include substantial supporting documentation that was used to support the analysis.*

Attachments 1

This attachment pertains to timber harvesting, which was previously reviewed several times in the context of similar projects on the Allegheny National Forest. We are incorporating by reference the responses we previously provided in Greater Stickney, Izenbrow, Salmon West, Salmon East, Millsteck, and Chaffee.

Attachment 4

This attachment pertains to road construction, which was previously reviewed several times in context of similar projects on the Allegheny National Forest. We are incorporating by reference the responses we previously provided in Greater Stickney, Salmon West, Millsteck, and Chaffee. Please note no temporary road construction is being proposed in the Otter project. Road decommissioning is being proposed in the Otter project and roads proposed for decommissioning will be obliterated and restored to contour, where possible.

Attachment 27

This attachment shows photos of “post-harvest conditions of logged areas of national forests” unrelated to the proposed action.

Comment 11 (Steinmeyer): What I would like to see addressed and anticipate reading in the Decision Notice is: (1) Some evidence within the project narrative that carbon sequestration and the carbon storage function of the Allegheny National Forest trees and soil have been discussed, the rationale for and the effects of creating openings of various sizes over 40 acres on those functions have been weighed and what specific mitigation actions will be taken to minimize the post-harvest carbon sequestration loss for each of the proposed blocks of openings greater than 40 acres.

Response: Please see response to comment 4. Copies of both documents were sent to the commenter with the Draft Decision Notice for the Otter project.

Comment 12 (Steinmeyer): (2) A narrative that explains how the currently proposed Improving Stream Conditions proposed actions comply with Commonwealth of Pennsylvania, Department of Environmental Protection 2016a and b (Chapter 93) restrictions (Steinmeyer).

Response: While many of the streams in the Otter project area are rated by the Pennsylvania Department of Environmental Protection as High Quality Cold Water Fisheries, there is still room for improvements in habitat, water quality, and flood retention. Many of the streams on

the Allegheny National Forest lack the large woody material component normally found within mature, forested landscapes due to previous timber harvesting practices that took place from the early 1800s to 1900s. The Allegheny National Forest is a second growth forest and there are opportunities to speed up the recruitment of large wood into streams in this project area.

The Forest Service is working in partnership with the Western Pennsylvania Conservancy on this project. We have reviewed sections of Big Mill Creek and determined that the stream is lacking adequate large wood to create pools and retain clean gravels for trout spawning. The Forest Service is proposing to improve channel diversity and aquatic habitat by constructing several engineered large wood complexes with excavators harvesting and placing trees with root wads attached in the stream to approximately 0.3 miles of Big Mill Creek spread out over 5.2 miles. The Forest Service is proposing to create 19 large wood complexes using excavators over this 0.3 miles of stream. Less than 0.1 miles of Big Mill Creek will have structures created using a cable grip hoist and hand labor to place the trees into the stream. Large woody materials would also be added to the floodplain in key areas to enhance floodplain function. The other 29.8 miles of streams approved for large wood addition within the Otter project would have large wood added by directionally felling logs into stream and winching or grip-hoisting them into place. These 29.8 miles of treatments would not involve heavy equipment or placing root wads into streams.

All activities, including the large wood projects, in the Otter project would be required to maintain or improve the water quality standards of the streams in the project area through the Pennsylvania Department of Environmental Protection's anti-degradation requirement (PADEP 2016). The Forest Service will apply to the Pennsylvania Department of Environmental Protection and the Pennsylvania Fish and Boat Commission to acquire the appropriate permit for these projects. We have followed this process and implemented a similar project on East Branch of Spring Creek in 2016. The permitting process will begin after the Otter project decision has been signed. The permit will incorporate project design features, Forest Plan standards and guidelines, and Pennsylvania best management practices to ensure that effects from the project would have no adverse effects to water resources.

The following are some examples of practices used to reduce short-term and long-term sedimentation effects from the installation of root wads and logs using excavators: using designated stream crossing areas for equipment, working in low flow conditions, minimizing the time in the channel, and stabilizing and seeding soils. In addition, as much soils as possible would be removed from the root wads with the excavator before they are placed in the stream. This action mimics the natural occurrence of trees uprooting into streams as the stream migrates. Root wads are very stable in streams because they act as anchors and dig into the channel. The effects of embedding the logs and root wads into the channel would be short-term and turbidity is expected to return to normal very soon after equipment operation ends. Vegetation would become established on disturbed areas and lessen sedimentation and erosion. Final stability will take up to two months to within one year. Over the long term, the large wood structures are expected to trap a larger volume of sediment than this project would produce. In addition, the structures are expected to be beneficial to fish and other aquatic animals through the creation of diverse habitats, retaining organic matter, reducing flow velocities, and increasing flood water retention.

The effects to soils from the installation of logs from large wood felling operations using

hand labor with the aid of chainsaw, grip hoist, and winch would be minimal to non-existent, but this method is only stable and effective on streams smaller than the main stem of Big Mill Creek downstream of state highway 948.

Restoration of large wood levels would, in the short and long term, directly benefit juvenile and adult fish by creating larger lateral pools for rearing and resting and additional side channel over-wintering habitat. Montgomery and others (1995) documented that as the frequency of large wood increased within stream channels, both pool frequency and depth increased. In addition to increased pool frequency and depth, restoration of large wood levels benefits adult and juvenile trout by increasing hiding cover and retention of other organics (Cedarholm and others 2000). Large wood restoration would also provide roughness elements that would help regulate bed load movement of the stream channel and fine sediment deposition on the flood plain through time. Log complexes would also assist in the regulation of water velocity and infiltration of water on floodplains, which would help reduce downstream flooding.

Comment 13 (Mauk): First, I request review of two roads which affect the boundary of the Bloody Otter URA. ... Please note the two roads identified in Figure 1. In my March visit to the project area, these two roads appeared to be prime candidates for decommissioning. The northeastern of the two is an open area with much apparent illegal off-road and other activities. Decommissioning these two roads would increase a core area of the Bloody Run URA. No management activities in the Otter Project are in the vicinity of these roads (Mauk).

Response: *The shorter of the two non-system roads shown in Figure 1 is in the Pine Bear project not the Otter project. Most of the other road is also in the Pine Bear project. Neither road was proposed for decommissioning in the Pine Bear project. If it is determined in the future that these roads are not needed, they can be decommissioned in a future project.*

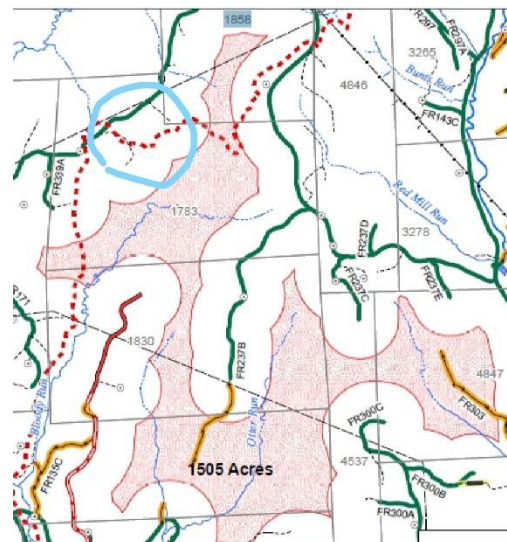


Figure 1-Two Roads for Review

Comment 14 (Mauk): Second, I wish to address the percentage of 0-20 age class in the project area in 2039. ... The Otter Vegetation Management Project Environmental Assessment page 16 states “Across all management areas currently about 3.8 percent (about 18,688 acres) of the Allegheny National Forest provides early structural habitat (zero to 20 years of age). This is less than a quarter of the amount (10-12 percent in management 3.0) of early structural habitat desired throughout the Allegheny National Forest, as identified in the Forest Plan (USDA-FS 2007a, page 19).” In my hard copy of the Forest Plan, and on the online version of the LRMP, this 12% figure is not shown on p. 19.

It is stated on p. 113 of the LRMP, in the section Management Area 3.0- Even Aged Management – Contribution to Desired Conditions – Objectives – “Maintain or create age and structural class diversity on lands suitable for timber management. Provide high quality hardwood timber products by regenerating an estimated 1,200 to 1,800 acres annually using even-aged management within the first and second decades of plan implementation, in order to

maintain 8 to 10 percent (not 12%) of the MA in early structural habitat (0 to 20 years old) over time.” Note that this is on lands “suitable for timber management.”

Of the 12,052 acres of public land in the project area (OVMP EA p. 11), 11,296 acres are forested (OVMP EA Table 5, p. 12). Table 2 of the EA, “Temporary opening blocks over 40 acres in size”, (p. 9) shows 1795 acres of will be early structural forest including stands from this project as well as previously approved stands. The result will be that 15.9% of the forested area within the project boundaries will be in early successional forest, nearly double the 8 to 10% goal for Management Area 3.

Response (clarification): *As stated on page 19 of the Forest Plan, one of the objectives is for 8 to 10 percent early structural forested conditions across the forest. On page 113 of the Forest Plan, one of the objectives for Management Area 3.0–Even-aged Management is also 8 to 10 percent early structural forested conditions in Management Area 3.0 over time. However, the Errata to Allegheny Plan Revision Documents (<https://www.fs.usda.gov/main/allegheny/landmanagement/planning>) change the percentages on page 113 of the Forest Plan to 10 to 12 percent early structural forest conditions (. Please note that the objective on page 113 for Management Area 3.0 states “maintain 8 to 10 (corrected to 10 to 12) percent of the MA (management area) in early structural habitat (0 to 20 years old) over time.”*

Currently, approximately 1 percent of the project area in in the zero to 20 age class (early structural habitat). An additional 1.5 percent of the project area was approved in previous decisions for regeneration harvests but are not ready for final harvests yet. The proposed action would create an additional 1,449 acres (12 percent of the project area) of early structural habitat. However, implementation will take time due to the reliance on natural seedling establishment for regeneration. Final harvests would only occur once adequate regeneration is established. Also, as stands on the Allegheny National Forest continue to age, it is important to continue creating early structural habitat to sustain this component over time.

The proposed action places is intended to retain our ability to maintain and improve desired vegetation conditions in the mid to long-term in Management Area 3.0 (even aged management. Treatments in these areas were proposed because they are experiencing substantial forest health concerns, and implementation of these treatments, and regeneration will provide a well-stocked, resilient forest in the long-term.

Comment 15 (Mauk): Lastly, in a related item, I will request the review of stands affecting the unknown tributary to Bloody Run. ... I am requesting a reduction in size of temporary opening Block 136C from 222 acres to 121 acres. These are the northern most stands of this block; 886008, 886055, 886056, 886057 and 886058. This would result in a 5.6% reduction in the overall harvest in the Otter Project, and would still result in 14.8% of the forested project area being in early structural forest.

Bloody Run is designated as a High Quality Cold Water Fishery impaired by low pH according to the PA DEP. (OVMP EA p. 29.) “Forest Plan standards and guidelines and Pennsylvania best management practices are designed to maintain and protect the high-quality cold water fisheries.” (OVMP EA p. 29.)

In a discussion of the effects of even-aged timber management on streams on pages 31-32 of the OVMP EA, it is established that a 25% reduction is a goal for maintaining water quality and at

40% water quality will definitely be impacted. One un-named tributary of Bloody Run will have a 40% reduction in basal area, which will be ameliorated by staggering the harvests to assure that no more than 25% will be 0-5 years at any one time. (OVMP p. C-1) This will result in a 25% basal area reduction for an extended period of time, which is not addressed in any of the cited studies on the effects of timber harvesting on streams. By removing these five stands, the potential effect on water quality of Bloody run will be reduced.

Removing these five stands will result in another incremental increase in the acres of the Bloody Run URA in the northern core area. This would require a slight reduction in the FR136C new road corridor.

For these three reasons, 1) maintaining 14.8% of the project area in early structural forest, 2) decreased change of a water quality reduction in the un-named tributary of Bloody Run, and 3) a slight increase in the Bloody Run URA with a slight reduction in new road corridor construction, I am requesting that these 5 stands be dropped from the proposed action. All of these stands contain seeps, springs, intermittent, perennial streams, vernal pools, OR wetlands. (OVMP p. C-3).

***Response:** We certainly appreciate the commenter's perspective and his concern for how the proposed action will affect the natural systems and feel of the acres in question. We have respectfully reviewed the stands cited in the comment, and we are resolved that the proposed treatments are essential to the long-term health of this area. Nature is already changing forest conditions within the area in question, and without the proactive measures we have proposed, we believe the external influence of non-native invasive species will likely stunt forest conditions for many generations. There are thousands of contiguous acres within the Allegheny National Forest where nature is the sole influence on the forest environment. In Management Area 3.0, our intent is to use what nature provides us, with best available science as our guide, to manage sustainably for a balance of social, economic and experiential benefits that a healthy forest environment provides. First and foremost, a healthy forest provides a healthy watershed; and we apply our Forest Plan standards and guidelines and our design criteria, and several checks along the way, to assure that our activities protect seeps, springs, intermittent and perennial streams, vernal pools and wetlands. We do not aim to tread where water has risen to the surface.*

Referring to our response to the commenter's well-considered scoping comments, we have re-considered our proposal, and we remain firm in our belief that the forest health concerns in the stands would have as much or more impact on the social values and ecological function of the Bloody Run unroaded area. We agree that unroaded areas provide unique recreational opportunities, wildlife habitat, and conservation of biodiversity and water quality. In the Otter project area, forest health concerns are prevalent and tangible. Our proposed action is focused on sustained ecosystem and watershed health, and not specifically on timber value.

- *Glossy buckthorn and other non-native invasive plant species are firmly entrenched within the project area.*
- *Crown die-back in black cherry trees, the predominant tree species throughout the project area, is extensive and we need to take advantage of a small window for regenerating new healthy stands.*
- *The loss of ash and mature beech limits options for species diversity within the*

project area.

We have carefully considered the need for new and existing roads to provide long term access to the proposed stands, and we believe the transportation network we have proposed is necessary to manage these stands from their current declining condition to healthy, diverse, well-functioning native forest stands in the future. Ignoring these challenges today only complicates forest management in the future and reduces the quality of recreation, wildlife habitat, species diversity, and opportunities for conservation of natural resources.

By implementing the proposed action (including the decommissioning of forest road 303 and non-system road NS030195 at the end of forest road 237B), the remaining portion of the Bloody Run unroaded area would become part of a larger 1,505 acre unroaded area (see Figure 2 below); and, overall, the unroaded area within the Otter project area would increase from 1,603 acres in the Forest-wide Road Analysis Process report to 2,510 acres in the proposed action, even with the extension and realignment of forest roads 135C and 135D. Note that forest roads 135C and 135D are already managed as closed roads, so once the proposed road construction extending or realigning these roads is completed, the opportunities for solitude will be similar to what exists now.

Literature Cited

- Birdsey, R., Pregitzer, K. & Lucier, A. (2006) Forest carbon management in the United States: 1600-2100. *Journal of Environmental Quality*, **35**, 1461-1469.
- Cedarholm, C.J., D.H. Johnson, R.E. Bilby, L.G. Dominguez, A.M. Garrett, W.H. Graeber, E.L. Greda, M.D. Kunze, B.G. Marcot, J.F. Palmisano, R.W. Plontnikoff, W.G. Pearcy, C.A. Simenstad, and PAGEC. Trotter. 2000. Pacific Salmon and Wildlife-Ecological Contexts, Relationships, and Implications for Management. Special Edition Technical Report, Prepared for D.H. Johnson and T.A. O'Neil (Manag. Dirs.), Wildlife-Habitat Relationships in Oregon and Washington. Washington Department of Fish and Wildlife, Olympia, Washington.
- Commonwealth of Pennsylvania, Bureau of Forestry. Continuous Forest Inventory, PA BOF Resources, Volume 2, Issue 1: Black Cherry. Unpublished (2015), 4 pages
- Commonwealth of Pennsylvania, Department of Environmental Protection. 2016. Antidegradation requirements. [<http://www.pacode.com/secure/data/025/chapter93/s93.4a.html>]; accessed 4/1/2016].
- FAOSTAT. (2013) Food and agriculture organization of the United Nations. *Statistical database*.
- Forrester, J.A., G.G. McGee, and M.J. Mitchell. 2003. Effects of beech bark disease on above ground biomass and species composition in a mature northern hardwood forest, 1985 to 2000. *J. Torrey Bot. Soc.* 130: 70–78.
- Hane, E.N. 2003. Indirect effects of beech bark disease on sugar maple seedling survival. *Canadian Journal of Forest Research*. 33: 806-813.
- Horsley, S. B., R. PAGE Long, S. W. Bailey, R. A. Hallett, and P. M. Wargo. 2003. White-tailed Deer Impact on the Vegetation Dynamics of a Northern Hardwood Forest. *Ecological Applications*, Ecological Society of America, 13(1): 2003, pages 98-118.
- Latty, E.F., C.D. Canham, and P. L. Marks. Beech bark disease in northern hardwood forests: the importance of nitrogen dynamics and forest history for disease severity. *Can. J. Forest. Res.*, 33 (2003), pages 257–268.
- Long, R., A. Hille, A. Stottlemeyer, and R. Turcotte. FHM Evaluation Monitoring Progress Report FY2015: Evaluating and monitoring black cherry health trends in response to multi-year stressors in Northwestern Pennsylvania. Unpublished (September 2015), 4 pages
- Miles, P. D. 2015. Forest Inventory EVALIDator web-application version 1.6.0.01. St. Paul, MN: U.S. Department of Agriculture, Forest Service, Northern Research Station. Available only on internet: <http://apps.fs.fed.us/Evalidator/evalidator.jsp> Accessed March 7, 2015.
- Millar, Constance, Nathan Stephenson, and Scott Stephens. 2007 Climate change and forests of the future: Managing in the face of uncertainty. *Ecological Applications*, 17(8), pages 2145-2151.

- Montgomery, D.R., G.E. Grant, and K. Sullivan 1995. Watershed Analysis: a framework for implementing ecosystem management. *Water Resources Bulletin* 31:369-386.
- Shifley, S.R. & Moser, W.K. (2016) Future forests of the northern United States. Gen. Tech. Rep. NRS-151. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 388 p.
- Swanston, Christopher W.; Janowiak, Maria K.; Brandt, Leslie A.; Butler, Patricia R.; Handler, Stephen D.; Shannon, P. Danielle; Derby Lewis, Abigail; Hall, Kimberly; Fahey, Robert T.; Scott, Lydia; Kerber, Angela; Miesbauer, Jason W.; Darling, Lindsay. 2016. **Forest Adaptation Resources: climate change tools and approaches for land managers, 2nd ed.** Gen. Tech. Rep. NRS-GTR-87-2. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 161 p.
<http://dx.doi.org/10.2737/NRS-GTR-87-2>
- Syracuse Environmental Research Associates. 2011. Syracuse Environmental Research Associates, Inc. Durkin, P. R. Glyphosate - Human Health and Ecological Risk Assessment, Final Report. SERA TR 052-22-03b. Report dated March 25, 2011.
- U.S. Department of Agriculture, Forest Service. 2007a. Allegheny National Forest Land and Resource Management Plan and Record of Decision. Warren, PA.
- U.S. Department of Agriculture, Forest Service. 2007b. Allegheny National Forest Final Environmental Impact Statement for the Land and Resource Management Plan. Warren, PA.
- U.S. Department of Agriculture, Forest Service. 2014. Allegheny National Forest FY 2008 – FY 2013 Monitoring and Evaluation Report. Warren, PA: USDA Forest Service, Allegheny National Forest. 294 pages
- U.S. Department of Interior, Fish and Wildlife Service. 2007. United States Fish and Wildlife Service concurrence letter regarding determinations in the Revised Forest Plan Biological Assessment. January 2007. 21 pp.
- U.S. Department of Interior, Fish and Wildlife Service. 2013. Endangered and threatened wildlife and plants; 12-month finding on a petition to list the eastern small-footed bat and the northern long-eared bat; listing the northern long-eared bat as an endangered species. *Federal Register* 78: 61046-61080.
- U.S. Department of Interior, Fish and Wildlife Service. 2015. Endangered and threatened wildlife and plants; listing the northern long-eared bat with a rule under section 4(d) of the act. *Federal Register* 80: 2371-2378.
- U.S. Department of Interior, Fish and Wildlife Service. 2016a. Programmatic biological opinion on final 4(d) rule for the northern long-eared bat and activities excepted from take prohibitions. Bloomington, MN: USDI Fish and Wildlife Service, Midwest Regional Office. 109 pages

U.S. Department of Interior, Fish and Wildlife Service. 2016b. Endangered and threatened wildlife and plants; 4(d) rule for the northern long-eared bat. Federal Register 81: 1900-1922.